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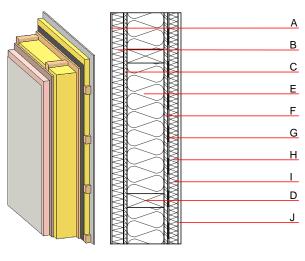
Designation: Last updated: Source: Editor: awropi07a-10 8/2/23 Holzforschung Austria HFA, SP

External wall - awropi07a-10

external wall, timber frame construction, not ventilated, with dry lining, with rendering, other surface

Performance rating

| Fire protection performance maximum ceiling height = Classified by HFA | REI from inside REI from outside 3 m; maximum load E _{d,fi} = 3 | 60 30 32,0 kN∕m |
|---|--|---------------------------------------|
| Thermal performance Calculated by HFA | U Diffusion | 0.18 W/(m ² K) suitable |
| Acoustic performance | R _w (C;C _{tr}) L _{n,w} (C _l) | 45(-3;-6) dB |
| vertical battens for the dry Rw(C;Ctr)=42(-1;-5) dB Assessed by MA39 | lining screwed onto the stru | ictural timber lead to an |
| Mass per unit area | m | 49.70 kg/m ² |



Calculation based on gypsum plaster board type DF

Note: e=625

Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

| | Thickness | Building material | Thermal per | rformance | | | Reaction to fire |
|---|-----------|--|-------------|-------------|------|-------|------------------|
| | | | λ | µ min – max | ρ | с | EN |
| ł | 4.0 | plaster | 1.000 | 10 - 35 | 2000 | 1.130 | A1 |
| 3 | 50.0 | Polystyrene EPS-F [0,040] | 0.040 | 20 - 50 | 17 | 1.450 | E |
| ; | 15.0 | fibreboard (MDF) | 0.140 | 11 | 600 | 1.700 | D |
|) | 160.0 | construction timber (60/; e=*) | 0.120 | 50 | 450 | 1.600 | D |
| | 160.0 | sheep wool [0,041; R=26] | 0.041 | 1 | 30 | 1.720 | E |
| | 15.0 | OSB | 0.130 | 200 | 600 | 1.700 | D |
| 5 | | vapour barrier sd≥ 9m | | | 1000 | | |
| ł | 40.0 | spruce wood cross battens (a=400) or battens offset) | 0.120 | 50 | 450 | 1.600 | D |
| | 40.0 | sheep wool [0,041; R=26] or air layer in type 02 | 0.041 | 1 | 30 | 1.720 | E |
| | 12.5 | gypsum plaster board type DF or | 0.250 | 10 | 800 | 1.050 | A2 |
| | 12.5 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

25.4

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Details of sustainability rating

Database ecoinvent

| Lifecycle | GWP | AP | EP | ODP | POCP | |
|-----------|--------------------------|--------------------------|--------------------------|-------------|---------------|-------|
| (Phases) | [kg CO ₂ -e.] | [kg SO ₂ -e.] | [kg PO ₄ -e.] | [kg R11-e.] | [kg Ethen-e.] | |
| A1 - A3 | | 0.102 | 0.040 | 2,04E-6 | 0.024 | |
| | | | | | | |
| Lifecycle | PERE | PERM | PERT | PENRE | PENRM | PENRT |
| | [MJ] | [MJ] | [M] | [LM] | [MJ] | [M] |
| (Phases) | [1412] | 1 | | | | |

dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes. These datasheets will generally be accepted as proofs of compliance by building authorities.